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ARCADIS U.S., Inc.
126 North Jefferson Street
Suite 400
Milwaukee
Wisconsin 53202
Tel 414.276.7742
Fax 414.276.7603
www.arcadis-us.com

John Hnat, P.G., C.P.G.
Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212-0436

Subject:

Scope of Work for Supplemental Investigation and Vapor Mitigation, Success, Inc.
One Hour Martinizing, 2262 South 108th Street, West Allis, Wisconsin.
WDNR BRRTS#02-41-246246

FID 241 287 530

Dear Mr. Hnat:

In a letter dated August 14, 2014, the Wisconsin Department of Natural Resources (WDNR) denied a request for closure of the subject property and requested additional work. Based on subsequent email correspondence between WDNR and ARCADIS, a scope of work was developed. This letter presents an overview of the project background, and a scope of work and cost estimate for the requested work.

Project Background

The Success property is located at 2262 South 108 Street in the city of West Allis, Milwaukee County, Wisconsin. The subject property is developed with a one-story building, located at the northeast corner of the site. The building consists of masonry and steel construction with a slab-on-grade foundation (i.e., no basement). The site is located at the northeast corner of South 108 Street and West Lincoln Avenue, and is bordered to the east by an alley. An apartment building is located east of the alley, and a commercial building is located on the north adjacent property.

In response to a request for closure in 2007, the WDNR requested supplemental groundwater and subslab sampling. Based on the investigation results, the WDNR indicated in an October 18, 2010 letter that no further groundwater remediation will be required, and the monitoring well network could be abandoned. The monitoring wells, piezometers, and remediation wells installed throughout the project were abandoned on December 22 and 23, 2011. However, additional phases of subslab and indoor air sampling were requested by WDNR and subsequently completed.

A revised request for project closure was submitted to the WDNR in May 2014, and was denied in a letter dated August 14, 2014. ARCADIS requested clarification via

ENVIRONMENT

Date:
January 9, 2015

Contact:
Ed Buc

Phone:
414.276.7742

Email:
ed.buc@arcadis-us.com

Our ref:
WI000494.0006

BRRTS Entry
1.12.2015
Code 213

3,714 TOTAL = \$ 335,338.62

1.12.2015

48,816.00

\$ 384,154.62

Imagine the result

email on September 19, 2014 regarding the additional work requested in the WDNR letter, and the WDNR replied on September 30, 2014.

Scope of Work

Based on the August 14, 2014 WDNR letter and subsequent communications, ARCADIS has prepared a scope of work to address WDNR's comments. The following presents the tasks to be completed, and notes the relevant WDNR comment each task will address:

- Complete supplemental investigation on the north adjacent property (WDNR Comment No. 6).
- Prepare and submit an updated access agreement for the east adjacent property (WDNR Comment No. 3).
- Complete supplemental investigation on the east adjacent property (WDNR Comment No. 4).
- Design and oversee construction of a subslab depressurization system (SSDS) for the dry cleaner building and the north adjacent property (WDNR Comment Nos. 1, 2, 5).
- Prepare a letter report summarizing the results of the additional investigation.

The following sections present additional details regarding each task.

Supplemental Investigation, North Adjacent Property

A sump is located in the basement of the north adjacent property. In accordance with Comment No. 6 of the August 14, 2104 WDNR letter, a water sample will be collected from the sump. The sample will be collected using a disposable plastic beaker or bailer, and transferred to laboratory-supplied containers. The sample will be shipped to TestAmerica Laboratories for analysis of volatile organic compounds (VOCs), using United States Environmental Protection Agency (U.S. EPA) Method 8260.

Access Agreement, East Adjacent Properties

Several attempts have been made to contact the owner of the east adjacent property and gain access to conduct vapor sampling. The owner has not returned any calls or responded to written correspondence,

In accordance with Comment No. 3 of the August 14, 2014 WDNR letter, ACADIS will submit another written request using certified mail, with a copy to WDNR. The access agreement will include a description of the scope of sampling that WDNR is requesting and a copy of WDNR's August 14, 2014 letter. If the owner does not respond, the matter will be turned over to the WDNR to pursue access.

Investigation Activities, East Adjacent Property

The east adjacent property is occupied by a 2-story apartment building with a basement. Once access has been obtained, ARCADIS will conduct a field survey of the building on the east adjacent property in accordance with Comment No. 4 of the August 14, 2014 WDNR letter. The purpose of the survey will be to document the condition of the flooring in the basement, including the presence of cracks, drains, sumps, and other floor penetrations. Locations of cracks and other penetrations will be noted on a figure.

In accordance with the July 2012 update to the WDNR's guidance on vapor intrusion evaluation, a paired subslab/indoor air sample will then be collected, as well as an outdoor air sample. ARCADIS will install one subslab vapor probe inside the east adjacent building. The location of the vapor probe will be based on the layout of the basement of the building, but ARCADIS will attempt to locate the vapor probe in the western portion of the building, which is the direction closest to the dry cleaner. Sampling will be completed in accordance with the WDNR guidance document entitled "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin".

The vapor probe will be installed by drilling a 5/8-inch diameter hole through the floor slab and into the base coarse using a hammer drill. The upper 1-inch portion of the hole will be over-drilled with a 1 1/2-inch diameter drill bit to set the sample port. A stainless steel vapor probe will then be placed in the hole and sealed with grout. To collect a vapor sample, the probe will be connected to a 6-liter summa canister, and the sampling train purged using a sample pump. Prior to sampling, a leak test will be performed on the vapor probe sampling train to confirm the vapor probe sampling

port is sealed and purged properly. The canister valve will be opened, and the vacuum in the canister will withdraw a vapor sample. The canister will be sealed and submitted to a laboratory for analysis of VOCs using U.S. EPA Method TO-15.

Concurrent with the subslab sampling, indoor and outdoor air samples will be collected. The indoor air sample will be collected from the basement, and both samples will be collected using a summa canister with a flow controller. The canister valves will be opened to allow the collection of an 8-hour time integrated indoor air sample. After 8 hours, the canister valve will be closed and the canister will be submitted for laboratory analysis of VOCs via U.S. EPA Method TO-15 SIM.

ARCADIS will also collect one outdoor air background sample. This sample will also be collected as an 8-hour time integrated sample, and will be analyzed for VOCs using U.S. EPA Method TO-15 SIM.

It is assumed that a sump is located in the basement of the apartment building. A water sample will be collected from the sump, if present. The sample will be collected using a disposable plastic beaker or bailer, and transferred to laboratory-supplied containers. The sample will be shipped to TestAmerica Laboratories for analysis of VOCs using U.S. EPA Method 8260.

SSDS Design, Construction and Testing

The WDNR has requested the installation of SSDSs at the dry cleaner building and the building on the north adjacent property. In accordance with Comment Nos. 1, 2 and 5 of the August 14, 2014 WDNR letter and subsequent communications, ARCADIS will complete the following tasks as part of this work:

- Prepare an access agreement for the north adjacent property. The current access agreement is limited to sampling activities.
- Conduct a walk-through of each building with a contractor.
- Design a SSDS for each building.
- Oversee and document installation of each SSDS and related activities, including:

- Sealing of accessible cracks and penetrations in the dry cleaner floor slab and the floor and walls of the north adjacent property building basement.
 - Seal the sump in the basement of the north adjacent property building.
 - Install permanent vapor probes for collection of subslab pressure data. Four probes will be installed in the dry cleaner and four probes will be installed in the north adjacent building.
 - Install an active SSDS in each building
- Complete vacuum influence measurements after each SSDS is operational to verify presence of a pressure gradient.
 - Provide an operation and maintenance manual for the respective SSDS to each property owner and the WDNR.

After the SSDS on the north adjacent property has been active for a minimum of 3 months, indoor air sampling will be completed. Indoor and outdoor air samples will be collected following the procedures outlined earlier.

The building on the site is an active dry cleaner. VOCs will be present due to dry cleaning operations. Consequently, indoor air samples will not be collected from the dry cleaner building. Verification of SSDS effectiveness will be evaluated by the presence of a subslab pressure gradient.

Reporting

Following completion of the scope of work described in this work plan, ARCADIS will prepare a brief letter summarizing the results of the work. The letter will provide recommendations regarding closure and preparation of an updated closure request.

Estimated Cost

ARCADIS will conduct the scope of work for an estimated cost of \$48,816. Table 1 includes a breakdown of the project costs for the proposed work and the unit rates and estimates of hours to be worked by ARCADIS. Costs associated with the investigation and remediation activities at the subject property are eligible for reimbursement through the Drycleaner Environmental Response Program (DERP).

Costs associated with preparing the closure request should be eligible for reimbursement through the DERP.

The following assumptions were made to develop this cost estimate:

- The estimated cost for the SSDSs is based on ARCADIS experience with installations in commercial buildings. A written estimate for each system will be obtained from a contractor, based on a site walkthrough to be coordinated with installation of the vapor monitoring points.
- It is estimated that up to two drums of soil will be generated during installation of each SSDS. Costs have been included for characterization of the soil for disposal. Disposal costs included herein assume the soil from each property can be managed as a nonhazardous waste. Costs have not been included for obtaining a waste characterization concurrence letter from the WDNR.

Closing

ARCADIS appreciates your assistance with this project. If the additional scope of work and associated costs are acceptable, please provide us with authorization to proceed. If you have any questions or require additional information, please contact us at your earliest convenience.

Sincerely,

ARCADIS U.S., Inc.



Edmund A. Buc, PE, CHMM
Principal Engineer

Copies:

Brian Cass – One Hour Martinizing
Ed Jones – Success, Inc.



Table 1. Cost Estimate for Vapor Assessment and Mitigation, Success, Inc. One Hour Martinizing, 2262 South 108th Street, West Allis, Wisconsin.

Consultant Costs						
	Number	Unit		Rate	Unit	Totals
Supplemental Investigation, North Adjacent Property						
Staff Scientist/Engineer II	5	Hrs	@	\$84 /Hr		\$420
Project Staff I	3	Hrs	@	\$98 /Hr		\$294
Senior Project Staff I	1	Hrs	@	\$132 /Hr		\$132
Project Assistant	1	Hrs	@	\$68 /Hr		\$68
Senior Designer	1	Hrs	@	\$68 /Hr		\$68
Field Expenses						\$200
					Subtotal	\$1,182
Access Agreement, East Adjacent Property						
Project Staff I	4	Hrs	@	\$98 /Hr		\$392
Senior Project Staff I	2	Hrs	@	\$132 /Hr		\$264
Project Assistant	2	Hrs	@	\$68 /Hr		\$136
Senior Designer	2	Hrs	@	\$68 /Hr		\$136
					Subtotal	\$928
East Property Assessment						
Staff Scientist/Engineer II	12	Hrs	@	\$84 /Hr		\$1,008
Project Staff I	3	Hrs	@	\$98 /Hr		\$294
Senior Project Staff I	1	Hrs	@	\$132 /Hr		\$132
Senior Designer	2	Hrs	@	\$68 /Hr		\$136
Field Expenses						\$750
					Subtotal	\$2,320
Subslab Depressurization System - Access Agreement						
Project Staff I	4	Hrs	@	\$98 /Hr		\$392
Senior Project Staff I	2	Hrs	@	\$132 /Hr		\$264
Project Assistant	2	Hrs	@	\$68 /Hr		\$136
Senior Designer	2	Hrs	@	\$68 /Hr		\$136
					Subtotal	\$928
Subslab Depressurization System - Contractor Selection and Design (two systems)						
Staff Scientist/Engineer II	32	Hrs	@	\$84 /Hr		\$2,688
Project Staff I	5	Hrs	@	\$98 /Hr		\$490
Senior Project Staff I	2	Hrs	@	\$132 /Hr		\$264
Senior Designer	8	Hrs	@	\$68 /Hr		\$544
Project Assistant	8	Hrs	@	\$68 /Hr		\$544
					Subtotal	\$4,530
Subslab Depressurization System - Construction Oversight (two systems)						
Staff Scientist/Engineer II	32	Hrs	@	\$84 /Hr		\$2,688
Project Staff I	6	Hrs	@	\$98 /Hr		\$588
Senior Project Staff I	2	Hrs	@	\$132 /Hr		\$264
Project Assistant	3	Hrs	@	\$68 /Hr		\$204
Field Expenses						\$300
					Subtotal	\$4,044
Subslab Depressurization System - Operation and Maintenance Manual (two systems)						
Staff Scientist/Engineer II	8	Hrs	@	\$84 /Hr		\$672
Project Staff I	2	Hrs	@	\$98 /Hr		\$196
Senior Project Staff I	1	Hrs	@	\$132 /Hr		\$132
Project Assistant	2	Hrs	@	\$68 /Hr		\$136
Field Expenses						\$300
					Subtotal	\$1,436



Table 1. Cost Estimate for Vapor Assessment and Mitigation, Success, Inc. One Hour Martinizing, 2262 South 108th Street, West Allis, Wisconsin.

Consultant Costs						
	Number	Unit	Rate	Unit	Totals	
Subslab Depressurization System - Indoor Air Sampling						
Staff Scientist/Engineer II	12	Hrs	@	\$84 /Hr	\$1,008	
Project Staff I	3	Hrs	@	\$98 /Hr	\$294	
Senior Project Staff I	1	Hrs	@	\$132 /Hr	\$132	
Senior Designer	2	Hrs	@	\$68 /Hr	\$136	
Field Expenses					\$750	
					Subtotal	\$2,320
Reporting						
Project Staff I	30	Hrs	@	\$98 /Hr	\$2,940	
Senior Project Staff I	4	Hrs	@	\$132 /Hr	\$528	
Project Assistant	5	Hrs	@	\$68 /Hr	\$340	
Senior Designer	5	Hrs	@	\$68 /Hr	\$340	
					Subtotal	\$4,148
					Subtotal, Consultant Costs	\$21,836
Contractor Costs						
	Number	Unit	Rate	Unit	Totals	
Supplemental Investigation, North Adjacent Property						
VOC Groundwater Samples	1	Sample	@	\$55 /Sample	\$55	
East Property Assessment						
VOC Air Samples	3	Sample	@	\$195 /Sample	\$585	
VOC Groundwater Samples	1	Sample	@	\$55 /Sample	\$55	
Subslab Depressurization System - Construction						
Sealing of Cracks/Penetrations	2	building	@	\$2,000 /building	\$4,000	
Private Utility Marking	2	building	@	\$250 /building	\$500	
System Installation	2	building	@	\$10,000 /building	\$20,000	
Waste profile sample	2	Sample	@	\$460 /Sample	\$920	
Soil Disposal	4	drum	@	\$75 /drum	\$300	
Drum Transportation	1	trip	@	\$175 /drum	\$175	
Subslab Depressurization System - Indoor Air Sampling						
VOC Air Samples	2	Sample	@	\$195 /Sample	\$390	
					Subtotal, Contractor Costs	\$26,980
					Total Estimated Costs	\$48,816